

ABSTRACT OF THE DISCLOSURE

The basic concept is that before a resource is accessed, the entity that has the burden of gathering the credentials, pro-actively refreshes the credentials and keeps them current. In one instance, a presenter of credentials, for example, a client, pro-actively re-
5 refreshes the credentials such that at the time of presentation, the credentials meet the resource-specific constraints of a recipient of credentials, for example, a resource server. For each resource that it protects, a resource server typically establishes various constraints such as a recency requirement, which specifies how recently a credential has to have been issued to be accepted as an adequate credential. Other constraints may include
10 maximum certificate chain length, trust level and so forth. In another instance, a recipient of credentials pro-actively gathers and refreshes credentials to prevent un-authorized access to the various resources it is protecting.